

Calendar No. 251

116TH CONGRESS }
1st Session }

SENATE

{ REPORT
116–131

AMERICAN MINERAL SECURITY ACT

OCTOBER 22, 2019.—Ordered to be printed

Ms. MURKOWSKI, from the Committee on Energy and Natural Resources, submitted the following

R E P O R T

[To accompany S. 1317]

[Including cost estimate of the Congressional Budget Office]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 1317) to facilitate the availability, development, and environmentally responsible production of domestic resources to meet national material or critical mineral needs, and for other purposes, having considered the same, reports favorably thereon with an amendment (in the nature of a substitute) and recommends that the bill, as amended, do pass.

AMENDMENT

The amendment is as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE; TABLE OF CONTENTS.

(a) SHORT TITLE.—This Act may be cited as the “American Mineral Security Act”.

(b) TABLE OF CONTENTS.—The table of contents for this Act is as follows:

Sec. 1. Short title; table of contents.

TITLE I—AMERICAN MINERAL SECURITY

Sec. 101. Definitions.

Sec. 102. Policy.

Sec. 103. Critical mineral designations.

Sec. 104. Resource assessment.

Sec. 105. Permitting.

Sec. 106. Federal Register process.

Sec. 107. Recycling, efficiency, and alternatives.

Sec. 108. Analysis and forecasting.

Sec. 109. Education and workforce.

Sec. 110. National geological and geophysical data preservation program.

Sec. 111. Administration.

Sec. 112. Authorization of appropriations.

TITLE II—RARE EARTH ELEMENT ADVANCED COAL TECHNOLOGIES

Sec. 201. Program for extraction and recovery of rare earth elements and minerals from coal and coal byproducts.
 Sec. 202. Report.

TITLE I—AMERICAN MINERAL SECURITY

SEC. 101. DEFINITIONS.

In this title:

- (1) BYPRODUCT.—The term “byproduct” means a critical mineral—
 - (A) the recovery of which depends on the production of a host mineral that is not designated as a critical mineral; and
 - (B) that exists in sufficient quantities to be recovered during processing or refining.
- (2) CRITICAL MINERAL.—
 - (A) IN GENERAL.—The term “critical mineral” means any mineral, element, substance, or material designated as critical by the Secretary under section 103.
 - (B) EXCLUSIONS.—The term “critical mineral” does not include—
 - (i) fuel minerals, including oil, natural gas, or any other fossil fuels; or
 - (ii) water, ice, or snow.
- (3) CRITICAL MINERAL MANUFACTURING.—The term “critical mineral manufacturing” means—
 - (A) the exploration, development, mining, production, processing, refining, alloying, separation, concentration, magnetic sintering, melting, or beneficiation of critical minerals within the United States;
 - (B) the fabrication, assembly, or production, within the United States, of equipment, components, or other goods with energy technology-, defense-, agriculture-, consumer electronics-, or health care-related applications; or
 - (C) any other value-added, manufacturing-related use of critical minerals undertaken within the United States.
- (4) INDIAN TRIBE.—The term “Indian tribe” has the meaning given the term in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 5304).
- (5) SECRETARY.—The term “Secretary” means the Secretary of the Interior.
- (6) STATE.—The term “State” means—
 - (A) a State;
 - (B) the District of Columbia;
 - (C) the Commonwealth of Puerto Rico;
 - (D) Guam;
 - (E) American Samoa;
 - (F) the Commonwealth of the Northern Mariana Islands; and
 - (G) the United States Virgin Islands.

SEC. 102. POLICY.

(a) IN GENERAL.—Section 3 of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1602) is amended in the second sentence—

- (1) by striking paragraph (3) and inserting the following:

“(3) establish an analytical and forecasting capability for identifying critical mineral demand, supply, and other factors to allow informed actions to be taken to avoid supply shortages, mitigate price volatility, and prepare for demand growth and other market shifts;”;
- (2) in paragraph (6), by striking “and” after the semicolon at the end; and
- (3) by striking paragraph (7) and inserting the following:

“(7) facilitate the availability, development, and environmentally responsible production of domestic resources to meet national material or critical mineral needs;

“(8) avoid duplication of effort, prevent unnecessary paperwork, and minimize delays in the administration of applicable laws (including regulations) and the issuance of permits and authorizations necessary to explore for, develop, and produce critical minerals and to construct critical mineral manufacturing facilities in accordance with applicable environmental and land management laws;

“(9) strengthen—

 - “(A) educational and research capabilities at not lower than the secondary school level; and
 - “(B) workforce training for exploration and development of critical minerals and critical mineral manufacturing;

“(10) bolster international cooperation through technology transfer, information sharing, and other means;

“(11) promote the efficient production, use, and recycling of critical minerals;

“(12) develop alternatives to critical minerals; and

“(13) establish contingencies for the production of, or access to, critical minerals for which viable sources do not exist within the United States.”.

(b) CONFORMING AMENDMENT.—Section 2(b) of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1601(b)) is amended by striking “(b) As used in this Act, the term” and inserting the following:

“(b) DEFINITIONS.—In this Act:

“(1) CRITICAL MINERAL.—The term ‘critical mineral’ means any mineral, element, substance, or material designated as critical by the Secretary under section 103 of the American Mineral Security Act.

“(2) MATERIALS.—The term”.

SEC. 103. CRITICAL MINERAL DESIGNATIONS.

(a) DRAFT METHODOLOGY AND LIST.—The Secretary, acting through the Director of the United States Geological Survey (referred to in this section as the “Secretary”), shall publish in the Federal Register for public comment—

(1) a description of the draft methodology used to identify a draft list of critical minerals;

(2) a draft list of minerals, elements, substances, and materials that qualify as critical minerals; and

(3) a draft list of critical minerals recovered as byproducts.

(b) AVAILABILITY OF DATA.—If available data is insufficient to provide a quantitative basis for the methodology developed under this section, qualitative evidence may be used to the extent necessary.

(c) FINAL METHODOLOGY AND LIST.—After reviewing public comments on the draft methodology and the draft list of critical minerals published under subsection (a) and updating the methodology and list as appropriate, not later than 45 days after the date on which the public comment period with respect to the draft methodology and draft list closes, the Secretary shall publish in the Federal Register—

(1) a description of the final methodology for determining which minerals, elements, substances, and materials qualify as critical minerals; and

(2) the final list of critical minerals.

(d) DESIGNATIONS.—

(1) IN GENERAL.—For purposes of carrying out this section, the Secretary shall maintain a list of minerals, elements, substances, and materials designated as critical, pursuant to the final methodology published under subsection (c), that the Secretary determines—

(A) are essential to the economic or national security of the United States;

(B) the supply chain of which is vulnerable to disruption (including restrictions associated with foreign political risk, abrupt demand growth, military conflict, violent unrest, anti-competitive or protectionist behaviors, and other risks throughout the supply chain); and

(C) serve an essential function in the manufacturing of a product (including energy technology-, defense-, currency-, agriculture-, consumer electronics-, and health care-related applications), the absence of which would have significant consequences for the economic or national security of the United States.

(2) INCLUSIONS.—Notwithstanding the criteria under subsection (c), the Secretary may designate and include on the list any mineral, element, substance, or material determined by another Federal agency to be strategic and critical to the defense or national security of the United States.

(3) REQUIRED CONSULTATION.—The Secretary shall consult with the Secretaries of Defense, Commerce, Agriculture, and Energy and the United States Trade Representative in designating minerals, elements, substances, and materials as critical under this subsection.

(e) SUBSEQUENT REVIEW.—

(1) IN GENERAL.—The Secretary, in consultation with the Secretaries of Defense, Commerce, Agriculture, and Energy and the United States Trade Representative, shall review the methodology and list under subsection (c) and the designations under subsection (d) at least every 3 years, or more frequently as the Secretary considers to be appropriate.

(2) REVISIONS.—Subject to subsection (d)(1), the Secretary may—

(A) revise the methodology described in this section;

(B) determine that minerals, elements, substances, and materials previously determined to be critical minerals are no longer critical minerals; and

(C) designate additional minerals, elements, substances, or materials as critical minerals.

(f) NOTICE.—On finalization of the methodology and the list under subsection (c), or any revision to the methodology or list under subsection (e), the Secretary shall submit to Congress written notice of the action.

SEC. 104. RESOURCE ASSESSMENT.

(a) IN GENERAL.—Not later than 4 years after the date of enactment of this Act, in consultation with applicable State (including geological surveys), local, academic, industry, and other entities, the Secretary shall complete a comprehensive national assessment of each critical mineral that—

(1) identifies and quantifies known critical mineral resources, using all available public and private information and datasets, including exploration histories; and

(2) provides a quantitative and qualitative assessment of undiscovered critical mineral resources throughout the United States, including probability estimates of tonnage and grade, using all available public and private information and datasets, including exploration histories.

(b) SUPPLEMENTARY INFORMATION.—In carrying out this section, the Secretary may carry out surveys and field work (including drilling, remote sensing, geophysical surveys, topographical and geological mapping, and geochemical sampling and analysis) to supplement existing information and datasets available for determining the existence of critical minerals in the United States.

(c) PUBLIC ACCESS.—Subject to applicable law, to the maximum extent practicable, the Secretary shall make all data and metadata collected from the comprehensive national assessment carried out under subsection (a) publically and electronically accessible.

(d) TECHNICAL ASSISTANCE.—At the request of the Governor of a State or the head of an Indian tribe, the Secretary may provide technical assistance to State governments and Indian tribes conducting critical mineral resource assessments on non-Federal land.

(e) PRIORITIZATION.—

(1) IN GENERAL.—The Secretary may sequence the completion of resource assessments for each critical mineral such that critical minerals considered to be most critical under the methodology established under section 103 are completed first.

(2) REPORTING.—During the period beginning not later than 1 year after the date of enactment of this Act and ending on the date of completion of all of the assessments required under this section, the Secretary shall submit to Congress on an annual basis an interim report that—

(A) identifies the sequence and schedule for completion of the assessments if the Secretary sequences the assessments; or

(B) describes the progress of the assessments if the Secretary does not sequence the assessments.

(f) UPDATES.—The Secretary may periodically update the assessments conducted under this section based on—

(1) the generation of new information or datasets by the Federal Government; or

(2) the receipt of new information or datasets from critical mineral producers, State geological surveys, academic institutions, trade associations, or other persons.

(g) ADDITIONAL SURVEYS.—The Secretary shall complete a resource assessment for each additional mineral or element subsequently designated as a critical mineral under section 103(e)(2) not later than 2 years after the designation of the mineral or element.

(h) REPORT.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a report describing the status of geological surveying of Federal land for any mineral commodity—

(1) for which the United States was dependent on a foreign country for more than 25 percent of the United States supply, as depicted in the report issued by the United States Geological Survey entitled “Mineral Commodity Summaries 2019”; but

(2) that is not designated as a critical mineral under section 103.

SEC. 105. PERMITTING.

(a) SENSE OF CONGRESS.—It is the sense of Congress that—

(1) critical minerals are fundamental to the economy, competitiveness, and security of the United States;

(2) to the maximum extent practicable, the critical mineral needs of the United States should be satisfied by minerals responsibly produced and recycled in the United States; and

(3) the Federal permitting process has been identified as an impediment to mineral production and the mineral security of the United States.

(b) **PERFORMANCE IMPROVEMENTS.**—To improve the quality and timeliness of decisions, the Secretary (acting through the Director of the Bureau of Land Management) and the Secretary of Agriculture (acting through the Chief of the Forest Service) (referred to in this section as the “Secretaries”) shall, to the maximum extent practicable, with respect to critical mineral production on Federal land, complete Federal permitting and review processes with maximum efficiency and effectiveness, while supporting vital economic growth, by—

(1) establishing and adhering to timelines and schedules for the consideration of, and final decisions regarding, applications, operating plans, leases, licenses, permits, and other use authorizations for mineral-related activities on Federal land;

(2) establishing clear, quantifiable, and temporal permitting performance goals and tracking progress against those goals;

(3) engaging in early collaboration among agencies, project sponsors, and affected stakeholders—

(A) to incorporate and address the interests of those parties; and

(B) to minimize delays;

(4) ensuring transparency and accountability by using cost-effective information technology to collect and disseminate information regarding individual projects and agency performance;

(5) engaging in early and active consultation with State, local, and Indian tribal governments to avoid conflicts or duplication of effort, resolve concerns, and allow for concurrent, rather than sequential, reviews;

(6) providing demonstrable improvements in the performance of Federal permitting and review processes, including lower costs and more timely decisions;

(7) expanding and institutionalizing permitting and review process improvements that have proven effective;

(8) developing mechanisms to better communicate priorities and resolve disputes among agencies at the national, regional, State, and local levels; and

(9) developing other practices, such as preapplication procedures.

(c) **REVIEW AND REPORT.**—Not later than 1 year after the date of enactment of this Act, the Secretaries shall submit to Congress a report that—

(1) identifies additional measures (including regulatory and legislative proposals, as appropriate) that would increase the timeliness of permitting activities for the exploration and development of domestic critical minerals;

(2) identifies options (including cost recovery paid by permit applicants) for ensuring adequate staffing and training of Federal entities and personnel responsible for the consideration of applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land;

(3) quantifies the amount of time typically required (including range derived from minimum and maximum durations, mean, median, variance, and other statistical measures or representations) to complete each step (including those aspects outside the control of the executive branch, such as judicial review, applicant decisions, or State and local government involvement) associated with the development and processing of applications, operating plans, leases, licenses, permits, and other use authorizations for critical mineral-related activities on Federal land, which shall serve as a baseline for the performance metric under subsection (d); and

(4) describes actions carried out pursuant to subsection (b).

(d) **PERFORMANCE METRIC.**—Not later than 90 days after the date of submission of the report under subsection (c), the Secretaries, after providing public notice and an opportunity to comment, shall develop and publish a performance metric for evaluating the progress made by the executive branch to expedite the permitting of activities that will increase exploration for, and development of, domestic critical minerals, while maintaining environmental standards.

(e) **ANNUAL REPORTS.**—Beginning with the first budget submission by the President under section 1105 of title 31, United States Code, after publication of the performance metric required under subsection (d), and annually thereafter, the Secretaries shall submit to Congress a report that—

(1) summarizes the implementation of recommendations, measures, and options identified in paragraphs (1) and (2) of subsection (c);

(2) using the performance metric under subsection (d), describes progress made by the executive branch, as compared to the baseline established pursuant to subsection (c)(3), on expediting the permitting of activities that will increase exploration for, and development of, domestic critical minerals; and

(3) compares the United States to other countries in terms of permitting efficiency and any other criteria relevant to the globally competitive critical minerals industry.

(f) **INDIVIDUAL PROJECTS.**—Using data from the Secretaries generated under subsection (e), the Director of the Office of Management and Budget shall prioritize inclusion of individual critical mineral projects on the website operated by the Office of Management and Budget in accordance with section 1122 of title 31, United States Code.

(g) **REPORT OF SMALL BUSINESS ADMINISTRATION.**—Not later than 1 year and 300 days after the date of enactment of this Act, the Administrator of the Small Business Administration shall submit to the applicable committees of Congress a report that assesses the performance of Federal agencies with respect to—

(1) complying with chapter 6 of title 5, United States Code (commonly known as the “Regulatory Flexibility Act”), in promulgating regulations applicable to the critical minerals industry; and

(2) performing an analysis of regulations applicable to the critical minerals industry that may be outmoded, inefficient, duplicative, or excessively burdensome.

(h) **APPLICATION.**—Section 41001(6)(A) of the FAST Act (42 U.S.C. 4370m(6)(A)) is amended in the matter preceding clause (i) by inserting “(including critical mineral manufacturing (as defined in section 101 of the American Mineral Security Act))” after “manufacturing”.

SEC. 106. FEDERAL REGISTER PROCESS.

(a) **DEPARTMENTAL REVIEW.**—Absent any extraordinary circumstance, and except as otherwise required by law, the Secretary and the Secretary of Agriculture shall ensure that each Federal Register notice described in subsection (b) shall be—

(1) subject to any required reviews within the Department of the Interior or the Department of Agriculture; and

(2) published in final form in the Federal Register not later than 45 days after the date of initial preparation of the notice.

(b) **PREPARATION.**—The preparation of Federal Register notices required by law associated with the issuance of a critical mineral exploration or mine permit shall be delegated to the organizational level within the agency responsible for issuing the critical mineral exploration or mine permit.

(c) **TRANSMISSION.**—All Federal Register notices regarding official document availability, announcements of meetings, or notices of intent to undertake an action shall be originated in, and transmitted to the Federal Register from, the office in which, as applicable—

- (1) the documents or meetings are held; or
- (2) the activity is initiated.

SEC. 107. RECYCLING, EFFICIENCY, AND ALTERNATIVES.

(a) **ESTABLISHMENT.**—The Secretary of Energy (referred to in this section as the “Secretary”) shall conduct a program of research and development—

(1) to promote the efficient production, use, and recycling of critical minerals throughout the supply chain; and

(2) to develop alternatives to critical minerals that do not occur in significant abundance in the United States.

(b) **COOPERATION.**—In carrying out the program, the Secretary shall cooperate with appropriate—

- (1) Federal agencies and National Laboratories;
- (2) critical mineral producers;
- (3) critical mineral processors;
- (4) critical mineral manufacturers;
- (5) trade associations;
- (6) academic institutions;
- (7) small businesses; and
- (8) other relevant entities or individuals.

(c) **ACTIVITIES.**—Under the program, the Secretary shall carry out activities that include the identification and development of—

(1) advanced critical mineral extraction, production, separation, alloying, or processing technologies that decrease the energy consumption, environmental impact, and costs of those activities, including—

- (A) efficient water and wastewater management strategies;
- (B) technologies and management strategies to control the environmental impacts of radionuclides in ore tailings;
- (C) technologies for separation and processing; and
- (D) technologies for increasing the recovery rates of byproducts from host metal ores;

(2) technologies or process improvements that minimize the use, or lead to more efficient use, of critical minerals across the full supply chain;

(3) technologies, process improvements, or design optimizations that facilitate the recycling of critical minerals, and options for improving the rates of collection of products and scrap containing critical minerals from post-consumer, industrial, or other waste streams;

(4) commercial markets, advanced storage methods, energy applications, and other beneficial uses of critical minerals processing byproducts;

(5) alternative minerals, metals, and materials, particularly those available in abundance within the United States and not subject to potential supply restrictions, that lessen the need for critical minerals; and

(6) alternative energy technologies or alternative designs of existing energy technologies, particularly those that use minerals that—

(A) occur in abundance in the United States; and

(B) are not subject to potential supply restrictions.

(d) Reports.—Not later than 2 years after the date of enactment of this Act, and annually thereafter, the Secretary shall submit to Congress a report summarizing the activities, findings, and progress of the program.

SEC. 108. ANALYSIS AND FORECASTING.

(a) CAPABILITIES.—In order to evaluate existing critical mineral policies and inform future actions that may be taken to avoid supply shortages, mitigate price volatility, and prepare for demand growth and other market shifts, the Secretary, in consultation with the Energy Information Administration, academic institutions, and others in order to maximize the application of existing competencies related to developing and maintaining computer-models and similar analytical tools, shall conduct and publish the results of an annual report that includes—

(1) as part of the annually published Mineral Commodity Summaries from the United States Geological Survey, a comprehensive review of critical mineral production, consumption, and recycling patterns, including—

(A) the quantity of each critical mineral domestically produced during the preceding year;

(B) the quantity of each critical mineral domestically consumed during the preceding year;

(C) market price data or other price data for each critical mineral;

(D) an assessment of—

(i) critical mineral requirements to meet the national security, energy, economic, industrial, technological, and other needs of the United States during the preceding year;

(ii) the reliance of the United States on foreign sources to meet those needs during the preceding year; and

(iii) the implications of any supply shortages, restrictions, or disruptions during the preceding year;

(E) the quantity of each critical mineral domestically recycled during the preceding year;

(F) the market penetration during the preceding year of alternatives to each critical mineral;

(G) a discussion of international trends associated with the discovery, production, consumption, use, costs of production, prices, and recycling of each critical mineral as well as the development of alternatives to critical minerals; and

(H) such other data, analyses, and evaluations as the Secretary finds are necessary to achieve the purposes of this section; and

(2) a comprehensive forecast, entitled the “Annual Critical Minerals Outlook”, of projected critical mineral production, consumption, and recycling patterns, including—

(A) the quantity of each critical mineral projected to be domestically produced over the subsequent 1-year, 5-year, and 10-year periods;

(B) the quantity of each critical mineral projected to be domestically consumed over the subsequent 1-year, 5-year, and 10-year periods;

(C) an assessment of—

(i) critical mineral requirements to meet projected national security, energy, economic, industrial, technological, and other needs of the United States;

(ii) the projected reliance of the United States on foreign sources to meet those needs; and

(iii) the projected implications of potential supply shortages, restrictions, or disruptions;

(D) the quantity of each critical mineral projected to be domestically recycled over the subsequent 1-year, 5-year, and 10-year periods;

(E) the market penetration of alternatives to each critical mineral projected to take place over the subsequent 1-year, 5-year, and 10-year periods;

(F) a discussion of reasonably foreseeable international trends associated with the discovery, production, consumption, use, costs of production, and recycling of each critical mineral as well as the development of alternatives to critical minerals; and

(G) such other projections relating to each critical mineral as the Secretary determines to be necessary to achieve the purposes of this section.

(b) PROPRIETARY INFORMATION.—In preparing a report described in subsection (a), the Secretary shall ensure, consistent with section 5(f) of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1604(f)), that—

(1) no person uses the information and data collected for the report for a purpose other than the development of or reporting of aggregate data in a manner such that the identity of the person or firm who supplied the information is not discernible and is not material to the intended uses of the information;

(2) no person discloses any information or data collected for the report unless the information or data has been transformed into a statistical or aggregate form that does not allow the identification of the person or firm who supplied particular information; and

(3) procedures are established to require the withholding of any information or data collected for the report if the Secretary determines that withholding is necessary to protect proprietary information, including any trade secrets or other confidential information.

SEC. 109. EDUCATION AND WORKFORCE.

(a) WORKFORCE ASSESSMENT.—Not later than 1 year and 300 days after the date of enactment of this Act, the Secretary of Labor (in consultation with the Secretary, the Director of the National Science Foundation, institutions of higher education with substantial expertise in mining, institutions of higher education with significant expertise in minerals research, including fundamental research into alternatives, and employers in the critical minerals sector) shall submit to Congress an assessment of the domestic availability of technically trained personnel necessary for critical mineral exploration, development, assessment, production, manufacturing, recycling, analysis, forecasting, education, and research, including an analysis of—

(1) skills that are in the shortest supply as of the date of the assessment;

(2) skills that are projected to be in short supply in the future;

(3) the demographics of the critical minerals industry and how the demographics will evolve under the influence of factors such as an aging workforce;

(4) the effectiveness of training and education programs in addressing skills shortages;

(5) opportunities to hire locally for new and existing critical mineral activities;

(6) the sufficiency of personnel within relevant areas of the Federal Government for achieving the policies described in section 3 of the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1602); and

(7) the potential need for new training programs to have a measurable effect on the supply of trained workers in the critical minerals industry.

(b) CURRICULUM STUDY.—

(1) IN GENERAL.—The Secretary and the Secretary of Labor shall jointly enter into an arrangement with the National Academy of Sciences and the National Academy of Engineering under which the Academies shall coordinate with the National Science Foundation on conducting a study—

(A) to design an interdisciplinary program on critical minerals that will support the critical mineral supply chain and improve the ability of the United States to increase domestic, critical mineral exploration, development, production, manufacturing, research, including fundamental research into alternatives, and recycling;

(B) to address undergraduate and graduate education, especially to assist in the development of graduate level programs of research and instruction that lead to advanced degrees with an emphasis on the critical mineral supply chain or other positions that will increase domestic, critical mineral exploration, development, production, manufacturing, research, including fundamental research into alternatives, and recycling;

(C) to develop guidelines for proposals from institutions of higher education with substantial capabilities in the required disciplines for activities to improve the critical mineral supply chain and advance the capacity of the

United States to increase domestic, critical mineral exploration, research, development, production, manufacturing, and recycling; and

(D) to outline criteria for evaluating performance and recommendations for the amount of funding that will be necessary to establish and carry out the program described in subsection (c).

(2) REPORT.—Not later than 2 years after the date of enactment of this Act, the Secretary shall submit to Congress a description of the results of the study required under paragraph (1).

(c) PROGRAM.—

(1) ESTABLISHMENT.—The Secretary and the Secretary of Labor shall jointly conduct a competitive grant program under which institutions of higher education may apply for and receive 4-year grants for—

(A) startup costs for newly designated faculty positions in integrated critical mineral education, research, innovation, training, and workforce development programs consistent with subsection (b);

(B) internships, scholarships, and fellowships for students enrolled in programs related to critical minerals;

(C) equipment necessary for integrated critical mineral innovation, training, and workforce development programs; and

(D) research of critical minerals and their applications, particularly concerning the manufacture of critical components vital to national security.

(2) RENEWAL.—A grant under this subsection shall be renewable for up to 2 additional 3-year terms based on performance criteria outlined under subsection (b)(1)(D).

SEC. 110. NATIONAL GEOLOGICAL AND GEOPHYSICAL DATA PRESERVATION PROGRAM.

Section 351(k) of the Energy Policy Act of 2005 (42 U.S.C. 15908(k)) is amended by striking “\$30,000,000 for each of fiscal years 2006 through 2010” and inserting “\$5,000,000 for each of fiscal years 2020 through 2029, to remain available until expended”.

SEC. 111. ADMINISTRATION.

(a) IN GENERAL.—The National Critical Materials Act of 1984 (30 U.S.C. 1801 et seq.) is repealed.

(b) CONFORMING AMENDMENT.—Section 3(d) of the National Superconductivity and Competitiveness Act of 1988 (15 U.S.C. 5202(d)) is amended in the first sentence by striking “, with the assistance of the National Critical Materials Council as specified in the National Critical Materials Act of 1984 (30 U.S.C. 1801 et seq.),”.

(c) SAVINGS CLAUSES.—

(1) IN GENERAL.—Nothing in this title or an amendment made by this title modifies any requirement or authority provided by—

(A) the matter under the heading “geological survey” of the first section of the Act of March 3, 1879 (43 U.S.C. 31(a)); or

(B) the first section of Public Law 87—626 (43 U.S.C. 31(b)).

(2) EFFECT ON DEPARTMENT OF DEFENSE.—Nothing in this title or an amendment made by this title affects the authority of the Secretary of Defense with respect to the work of the Department of Defense on critical material supplies in furtherance of the national defense mission of the Department of Defense.

(3) SECRETARIAL ORDER NOT AFFECTED.—This title shall not apply to any mineral described in Secretarial Order No. 3324, issued by the Secretary on December 3, 2012, in any area to which the order applies.

(d) APPLICATION OF CERTAIN PROVISIONS.—

(1) IN GENERAL.—Sections 105 and 106 shall apply to—

(A) an exploration project in which the presence of a byproduct is reasonably expected, based on known mineral companionship, geologic formation, mineralogy, or other factors; and

(B) a project that demonstrates that the byproduct is of sufficient grade that, when combined with the production of a host mineral, the byproduct is economic to recover, as determined by the applicable Secretary in accordance with paragraph (2).

(2) REQUIREMENT.—In making the determination under paragraph (1)(B), the applicable Secretary shall consider the cost effectiveness of the byproducts recovery.

SEC. 112. AUTHORIZATION OF APPROPRIATIONS.

There is authorized to be appropriated to carry out this title \$50,000,000 for each of fiscal years 2020 through 2029.

TITLE II—RARE EARTH ELEMENT ADVANCED COAL TECHNOLOGIES

SEC. 201. PROGRAM FOR EXTRACTION AND RECOVERY OF RARE EARTH ELEMENTS AND MINERALS FROM COAL AND COAL BYPRODUCTS.

(a) IN GENERAL.—The Secretary of Energy, acting through the Assistant Secretary for Fossil Energy (referred to in this title as the “Secretary”), shall carry out a program under which the Secretary shall develop advanced separation technologies for the extraction and recovery of rare earth elements and minerals from coal and coal byproducts.

(b) AUTHORIZATION OF APPROPRIATIONS.—There is authorized to be appropriated to the Secretary to carry out the program described in subsection (a) \$23,000,000 for each of fiscal years 2020 through 2027.

SEC. 202. REPORT.

Not later than 1 year after the date of enactment of this Act, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report evaluating the development of advanced separation technologies for the extraction and recovery of rare earth elements and minerals from coal and coal byproducts, including acid mine drainage from coal mines.

PURPOSE

The purpose of S. 1317 is to facilitate the availability, development, and environmentally responsible production of domestic resources to meet national material or critical mineral needs.

BACKGROUND AND NEED

The economic health and national security of the United States depend on a reliable supply of “critical minerals.” Critical minerals are defined by Executive Order 13817 as “(i) a non-fuel mineral or mineral material essential to the economic and national security of the United States, (ii) the supply chain of which is vulnerable to disruption, and (iii) that serves an essential function in the manufacturing of a product, the absence of which would have significant consequences for our economy or our national security.” Over the past six decades the United States has become increasingly dependent on foreign sources for critical minerals. These critical minerals have increasing application in the defense, energy, healthcare, manufacturing, technology, transportation, and other domestic sectors. They are essential components for semiconductors, solar panels, smart phones, batteries, vehicles, satellites, and military systems. The United States possesses vast mineral resources, including reserves of some critical minerals, but produces a small fraction of these mineral commodities, in part, because of economic and regulatory hurdles to production including the federal permitting process. In 2018, China, followed by Canada, were the two major import sources for nonfuel mineral commodities for which the United States was more than 50% import reliant.

The United States’ mineral import dependency and the concentration of mineral supply from certain countries are broadly recognized as growing threats to economic growth, competitiveness, and national security. The resulting price and supply chain volatility has prompted a greater focus on policies related to mineral security and critical minerals that are important in use, susceptible to supply disruption, and for which no substitutes are readily available.

According to the National Energy Technology Lab (NETL), acid mine drainage sludge in West Virginia and Pennsylvania represent approximately 610 to 2,700 tons of rare earth elements designated

as critical minerals per year. Since 2010, NETL has been examining the concept of extracting these rare earth elements from coal and coal byproducts through Congressional appropriations but without a formal authorization.

Recognizing that America's foreign mineral dependence creates a critical vulnerability to economic growth and national security, S. 1317 would address the entire mineral supply chain by requiring the Secretary to conduct resources assessments, identify and update the critical minerals list, streamline the permitting process for critical minerals, provide programs to develop a strong minerals workforce, and encourage the recycling of minerals. The bill would also formally authorize a program at the Department of Energy to develop advanced separation technologies to extract and recover rare earth elements (REE) from coal and coal byproducts.

LEGISLATIVE HISTORY

S. 1317 was introduced by Senator Murkowski, with Senators Manchin, McSally, and Sullivan as original cosponsors on May 2, 2019. Senators Barrasso, Capito, Cramer, Crapo, Daines, Jones, Risch, and Tillis were later added as cosponsors. The Committee on Energy and Natural Resources held a hearing on S. 1317 on May 14, 2019.

In the 115th Congress, S. 1460, the Energy and Natural Resources Act, was introduced by Senators Murkowski and Cantwell on June 28, 2017. S. 1460 was placed directly on the Senate calendar pursuant to Rule XIV of the Standing Rules of the Senate. S. 1460 included similar provisions to those included in S. 1317.

In the 114th Congress, S. 883, the American Mineral Security Act, was introduced by Senator Murkowski on March 26, 2015. The Committee on Energy and Natural Resources held a hearing on S. 883 on May 12, 2015 (S. Hrg. 114-141). S. 883 was incorporated into S. 2012, the Energy Policy Modernization Act, which was reported by the Committee on Energy and Natural Resources by a vote of 18-4 on September 9, 2015. S. 2012 passed the Senate by a vote of 85-12 on April 20, 2016.

The Senate Committee on Energy and Natural Resources met in an open business session on July 16, 2019, and ordered S. 1317 favorably reported, as amended.

COMMITTEE RECOMMENDATION

The Senate Committee on Energy and Natural Resources, in open business session on July 16, 2019, by a majority voice vote of a quorum present, recommends that the Senate pass S. 1317, if amended as described herein. Senators Lee, Wyden, Cantwell, Stabenow, Heinrich, Hirono, and King asked to be recorded as voting no.

COMMITTEE AMENDMENT

During its consideration of S. 1317, the Committee adopted an amendment in the nature of a substitute. The substitute amendment adds the text of the Rare Earth Element Advanced Coal Technologies Act (S. 1052), as separately reported by the Committee (S. Rept. 116-74) to S. 1317, and reorganizes the bill into two titles: Title I, American Mineral Security (which contains the

text of S. 1317), and Title II, Rare Earth Element Advanced Coal Technologies (which contains the text of S. 1052). The substitute also renumbers the sections and makes several amendments to the text of the following sections (as renumbered):

Section 101(1) is amended to add a new definition for “byproduct.”

Section 103(a) is amended to require the Director of the U.S. Geological Survey (USGS) to publish a draft list of critical minerals that are recovered as byproducts, in addition to the draft methodology and list of critical minerals.

Section 107(c)(1), which authorizes research and development activities that the Department of Energy (DOE) can undertake, is amended to add a new subsection (c)(1)(D), which authorizes DOE to identify and develop technologies to increase the recovery rates from host metal ores.

Section 111 is amended to add a new subsection (d), which makes clear that sections 105 and 106 of this legislation shall also apply to projects that demonstrate that they have a byproduct that is of a high enough grade to economically recover when combined with the production of a host metal.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

Section 1 contains the short title and table of contents.

TITLE I—AMERICAN MINERAL SECURITY

Sec. 101. Definitions

Section 101 provides key definitions for title I.

Sec. 102. Policy

Section 102(a) amends section 3 of the National Materials and Minerals Policy, Research and Development Act of 1980 to modernize the congressional declaration of policy.

Subsection (b) contains a conforming amendment to add the definition for “critical mineral”.

Sec. 103. Critical mineral designations

Section 103(a) requires the Secretary of the Interior, acting through the Director of the USGS, to publish a draft methodology for the designation of critical minerals, a draft list of critical minerals, and a draft list of critical minerals recovered as byproducts in the Federal Register for a public comment.

Subsection (b) authorizes the Secretary to use qualitative data to develop the methodology if there is not sufficient quantitative data.

Subsection (c) directs the Secretary to finalize the methodology and list and publish them in the Federal Register within 45 days of the public comment period closing.

Subsection (d) requires the Secretary, in consultation with the Secretaries of Defense, Commerce, Agriculture, and Energy, and the U.S. Trade Representative, to designate and maintain a list of critical minerals that are (1) essential to the United States; (2) vulnerable to a supply disruption; and (3) serve an essential function in the manufacturing of a product.

Subsection (e) requires the methodology, list, and designations to be reviewed and updated at least every three years.

Subsection (f) directs the Secretary to provide written notice to Congress once the methodology and list are finalized, and anytime there is a revision to the methodology or list.

Sec. 104. Resource assessment

Section 104(a) requires the Secretary, in consultation with State geological surveys, within four years of enactment, to identify and quantify critical mineral resources throughout the United States, and to provide a quantitative and qualitative assessment of undiscovered domestic critical mineral resources.

Subsection (b) authorizes the Secretary to conduct additional surveys to supplement the assessments, including through geophysical surveys, and topographical and geological mapping.

Subsection (c) requires the Secretary to make any data collected for the assessment public, subject to all applicable laws.

Subsection (d) authorizes the Secretary to provide technical assistance to Indian tribes and states, if requested.

Subsection (e) authorizes the Secretary to prioritize assessments for minerals that are deemed to be the most critical, and requires the submission of annual reports to provide a status update on the completion of the assessments.

Subsection (f) authorizes the Secretary to update the assessments if new information becomes available.

Subsection (g) requires the Secretary to conduct assessments of any critical mineral that is added to the list within two years of its addition.

Subsection (h) requires the Secretary to submit a report to Congress within two years of enactment that provides an update on the status of geological surveying for minerals that the United States has greater than a 25 percent foreign dependence and are not designated as a critical mineral.

Sec. 105. Permitting

Section 105(a) provides a Sense of Congress that: (1) critical minerals are fundamental to the economy, competitiveness, and security of the United States; (2) domestic sources of critical minerals should be used to satisfy the United States' critical minerals demand; and (3) that Federal permitting process has impeded domestic minerals production and hindered America's mineral security.

Subsection (b) directs the Secretary, through the Director of the Bureau of Land Management, and the Secretary of Agriculture, through the Chief of the Forest Service, to the maximum extent practical, to complete Federal permits efficiently and to establish timelines and performance improvement goals to reduce delays in the permitting process.

Subsection (c) requires the Secretaries to submit a report to Congress within one year of enactment that (1) identifies additional measures that can be taken to increase the timeliness of permitting decisions; (2) identifies options to ensure adequate staffing and training to process permits; (3) quantifies the amount of time it takes to complete a Federal permit, and (4) describes the performance improvements in subsection (b).

Subsection (d) requires the Secretaries, within 90 days of submitting the report in subsection (c), to develop and publish a performance metric to measure the progress the Federal government is making to expedite the permitting process.

Subsection (e) requires the submission of annual reports to Congress that describe the progress made to expedite permits that will increase exploration for and development of critical mineral resources.

Subsection (f) requires the Director of the Office of Management and Budget to prioritize the inclusion of critical minerals on their website.

Subsection (g) requires the Administrator of the Small Business Administration, within 300 days of enactment, to submit a report to the Committees of jurisdiction on certain regulations affecting the critical minerals industry.

Subsection (h) adds “critical mineral manufacturing” to the Federal Infrastructure Projects Permitting Dashboard.

Sec. 106. Federal Register process

Section 106(a) requires Federal Register notices that are issued for a critical minerals exploration or mine permit to be published in final form within 45 days of the notice being prepared.

Subsection (b) requires that the notices be prepared at the organization level of the agency that is responsible for issuing the permit.

Subsection (c) requires that the notices be transmitted from the office in which the documents or meetings are held or the activity is initiated.

Sec. 107. Recycling, efficiency, and alternatives

Section 107(a) directs the Secretary of Energy to establish a program of research and development to promote the efficient production, use, and recycling of critical minerals throughout the supply chain, and to develop alternatives for critical minerals that do not occur in significant abundance in the United States.

Subsection (b) directs the Secretary of Energy to work with Federal agencies, National Laboratories, critical mineral producers, processors, and manufacturers, and other stakeholders to carry out the program.

Subsection (c) directs the Secretary of Energy to develop advanced critical mineral production technologies, including those that more efficiently use or recycle critical minerals.

Subsection (d) requires the Secretary of Energy to submit a report to Congress on the status of the program within two years of enactment.

Sec. 108. Analysis and forecasting

Section 108(a) directs the Secretary, in consultation with the Energy Information Administration (EIA) and other stakeholders, to develop and maintain analytical tools that provide a comprehensive review of critical mineral production, consumption, and recycling as a part of the USGS’s annual Mineral Commodity Summaries report. The subsection further requires the Secretary and the EIA to establish one, five, and 10-year forecasting capability for critical mineral reliance, and domestic consumption and production Sub-

section (b) requires the Secretary to protect any proprietary data that is used or collected for the forecasts.

Sec. 109. Education and workforce

Section 109(a) requires the Secretary of Labor, in consultation with the Secretary and institutions of higher education, to submit a report to Congress within one year and 300 days of enactment, that analyzes and assesses the supply of trained personnel for the critical minerals supply chain.

Subsection (b) requires the Secretary of Labor, in consultation with the Secretary, the National Academy of Sciences, and the National Science Foundation to develop curriculum for institutions of higher education that will train and prepare students for jobs in the critical minerals supply chain.

Subsection (c) requires the Secretary and the Secretary of Labor to conduct a competitive grant program that provides four-year grants to institutions of higher education that support critical minerals education and internships.

Sec. 110. National Geological and Geophysical Data Preservation Program

Section 110 reauthorizes the National Geological and Geophysical Data Preservation Program at \$5 million a year for each of fiscal years 2020 through 2029.

Sec. 111. Administration

Section 111(a) repeals the National Critical Materials Act of 1984.

Subsection (b) makes conforming amendments.

Subsection (c) provides three savings clauses related to the effect of the critical minerals bill and the authority of the Department of Defense with respect to critical minerals work.

Subsection (d) makes clear that sections 105 and 106 of this legislation shall also apply to projects that demonstrate that they have a byproduct that is of a high enough grade to economically recover when combined with the production of a host metal.

Sec. 112. Authorization of appropriations

Section 112 authorizes \$50 million a year for each of fiscal years 2020 through 2029 to carry out title I.

TITLE II—RARE EARTH ELEMENT ADVANCED COAL TECHNOLOGIES

Sec. 201. Program for extraction and recovery of rare earth elements and minerals from coal and coal byproducts

Section 201 requires the Secretary, acting through the Assistant Secretary for Fossil Energy, to carry out a program to develop advanced separation technologies for the extraction and recovery of REEs and minerals from coal and coal byproducts.

Subsection (b) authorizes \$23 million for each of fiscal years 2020 through 2027.

Sec. 202. Report

Section 202 directs the Secretary, within one year of enactment, to provide a report to the Congressional committees of jurisdiction

The following estimate of the costs of this measure has been provided by the Congressional Budget Office:

Title I of S. 1317 would authorize the appropriation of \$50 million annually over the 2020–2029 period for the Department of the Interior (DOI), the Department of Energy (DOE), and the Department of Labor to implement several new programs related to classifying, extracting, and using mineral resources in the United States. Title I also would authorize the appropriation of \$5 million annually over the 2020–2029 period for DOI to implement the National Geological and Geophysical Data Preservation Program. In 2019, DOI allocated \$1.3 million to that program.

Title II of the bill would authorize the appropriation of \$23 million annually over the 2020–2027 period for DOE to develop advanced technologies to extract rare-earth elements and minerals from coal and coal byproducts. In 2019, DOE allocated \$18 million for such activities. The bill also would direct DOE to report to the Congress on the development of such technologies.

Based on historical spending patterns for similar activities, and assuming appropriation of the authorized amounts, CBO estimates that implementing S. 1317 would cost \$303 million over the 2019–2024 period. The costs of the legislation (detailed in Table 1) fall within budget function 300 (natural resources and environment).

[illegible]

TABLE 1.—ESTIMATED INCREASES IN SPENDING SUBJECT TO APPROPRIATION UNDER S. 1317—
Continued

	By fiscal year, millions of dollars—													2019– 2024	2019– 2029
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029				
Title II Rare Earth Element Advanced Coal Technologies:															
Estimated Revenues	0	23	23	23	23	23	23	23	23	0	0	115	184		
Estimated Outlays	0	3	9	15	18	21	22	22	22	20	13	66	165		
Total Changes:															
Authorization	0	78	78	78	78	78	78	78	78	55	55	390	734		
Estimated Outlays	0	31	53	70	73	76	77	77	77	75	68	303	677		

On July 24, 2019, CBO transmitted a cost estimate for S. 1052, the Rare Earth Element Advanced Coal Technologies Act, as ordered reported by the Senate Committee on Energy and Natural Resources on July 16, 2019. Title II of S. 1317 is similar to S. 1052 and CBO's estimated costs of those provisions are the same.

The CBO staff contacts for this estimate are Robert Reese and Janani Shankaran. The estimate was reviewed by H. Samuel Papenfuss, Deputy Assistant Director for Budget Analysis.

REGULATORY IMPACT EVALUATION

In compliance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact which would be incurred in carrying out S. 1317. The bill is not a regulatory measure in the sense of imposing Government-established standards or significant economic responsibilities on private individuals and businesses.

No personal information would be collected in administering the program. Therefore, there would be no impact on personal privacy.

Little, if any, additional paperwork would result from the enactment of S. 1317, as ordered reported.

CONGRESSIONALLY DIRECTED SPENDING

S. 1317, as ordered reported, does not contain any congressionally directed spending items, limited tax benefits, or limited tariff benefits as defined in rule XLIV of the Standing Rules of the Senate.

EXECUTIVE COMMUNICATIONS

The testimony provided by the Department of the Interior at the May 14, 2019, hearing on S. 1317 follows:

STATEMENT OF JOSEPH BALASH, ASSISTANT SECRETARY FOR
LAND AND MINERALS MANAGEMENT, U.S. DEPARTMENT
OF THE INTERIOR

Thank you for the opportunity to testify on the Department of the Interior's (Department) development and management of critical minerals and on S. 1317, the American Mineral Security Act. The bill would require the Department to develop and maintain a list of minerals critical to the economic prosperity and national security of the United States and to improve the process of locating, de-

veloping, and using those critical minerals. The bill would also require several other agencies—including the Department of Energy, the Department of Labor, the U.S. Forest Service, the National Science Foundation, and the Small Business Administration—to track and report on efforts to promote improved critical minerals management.

The Department appreciates the Chairman and the Ranking Member’s recognition of the great importance of critical minerals. We are grateful for the hard work that has been done to draft legislation that will help us fulfill the critical minerals strategy developed in response to Executive Order 13817, A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals. We look forward to working with you on the bill to best achieve these goals and national security. The United States is currently 100 percent reliant on imports of 14 critical minerals, and over 50 percent import-reliant on 15 critical minerals.

FEDERAL CRITICAL MINERALS STRATEGY

To address this vulnerability, in 2017 the President issued Executive Order 13817, A Federal Strategy to Ensure Secure and Reliable Supplies of Critical Minerals. This Executive Order called on agencies across the Federal Government to develop a report that lays out a strategy to reduce the Nation’s susceptibility to critical mineral supply disruptions. To implement the President’s order, Secretary Zinke issued Secretary’s Order 3359, Critical Mineral Independence and Security. The Secretary of the Interior, with broad Federal interagency input, led development of the critical minerals list, which was published in the Federal Register on May 18, 2018. The list will be updated periodically to reflect current data on supply, demand, and concentration of production. The list currently includes 35 commodities.

The critical minerals list forms the foundation of the full strategy in the Administration’s report under E.O. 13817, which is forthcoming. The Department has already committed to a number of activities, including expanding geologic mapping using cutting edge technology which will be essential to assess our critical mineral resource potential. Furthermore, the Department is also conducting a review of permitting processes on Federal public lands. The Department will be fully engaged in implementing the strategy included in the forthcoming report, which will require collaboration across the Federal government and cooperation with States, Tribes, universities, and the private sector.

In order to ultimately improve the United States’ access to critical minerals, the USGS and the Bureau of Ocean Energy Management (BOEM) will undertake a plan to expand the mapping of the United States. The USGS’ Earth Mapping Resources Initiative (Earth MRI) will leverage the bureau’s existing relationships with States and the private sector to conduct state-of-the-art mapping and airborne geophysical and topographic (lidar) surveys. Anal-

yses of these datasets should point to potential buried critical mineral deposits. BOEM is beginning to focus its efforts on the potential for offshore critical mineral interest and development as part of their Marine Minerals Program, with an initial focus in Alaska. BOEM also proposed initiating a National Offshore Critical Mineral Inventory to supplement the work by the USGS and the Bureau of Land Management (BLM).

Additionally, the Administration has made environmentally responsible development of all domestic sources of energy a priority. Executive Order 13783, Promoting Energy Independence and Economic Growth calls upon the Department, and other Federal agencies, to increase access to and reduce burdens on energy development on public lands. This includes renewable energy development—and certain renewable energy technologies, especially advanced photovoltaic cells and batteries, which rely on critical minerals. Also, increasing access to oil and gas development will increase availability of helium, which is a byproduct of that development, and is a critical mineral.

In response to the President's Executive Orders, the Department and the BLM have improved environmental reviews and permitting authorizations for energy and mineral development. One such example is Secretary's Order 3355, Streamlining National Environmental Policy Act Reviews and Implementation of Executive Order 13807, which provides a number of internal Departmental directives to increase efficiency of environmental reviews, including setting page and time limit goals on all National Environmental Policy Act (NEPA) analysis. Over the last ten years, BLM Environmental Impact Statements (EISs) had an average preparation time of approximately five years. The BLM implemented Secretary's Order 3355 by establishing a new 12-month approval process for EISs and their associated Federal Register notices. The BLM also continues to coordinate with elected officials, engage with Tribes, other Federal agencies, and the public, to identify additional opportunities to streamline planning and NEPA processes at the BLM.

S. 1317, AMERICAN MINERAL SECURITY ACT

S. 1317, the American Mineral and Security Act, would require the Department to develop and maintain a list of minerals critical to the economic prosperity and national security of the United States and to improve the process of locating, developing and using those critical minerals. The bill would also authorize various other agencies to conduct activities that would promote critical mineral industry and its supply chain. The Department defers to those agencies on the provisions that affect them.

Designation & Assessment of Critical Minerals (Secs. 4, 5, 9 & 11)

The bill (Section 4) authorizes a process by which the USGS and other agencies would support the Secretary of

the Interior's designation of critical minerals. These provisions closely align with the Department's successful work to designate critical minerals as part of our Federal critical minerals strategy. Section 5 of the bill directs the Secretary of the Interior to conduct resource assessments of those critical minerals, within four years and with an update at two years. The Department supports conducting these assessments. As part of the Federal critical minerals strategy, the Department is directing the USGS and BOEM to assess critical mineral resources, including mapping on Federal public lands and offshore lands. The Department would like to work with the Committee on the timelines for the assessments to align them with the Federal strategy. In lieu of completing a four-year assessment of all critical minerals, we would recommend instead authorizing that at least one national or regional domestic multi-commodity critical mineral resource assessment on prospective deposit types be delivered every two years. The Department also would like to discuss with the Committee opportunities to improve our offshore critical minerals inventory.

Under the bill (Section 9), the USGS and the Energy Information Agency would be directed to expand current reports on mineral commodities to include an annual critical mineral forecast and certain other analyses. As part of the Federal critical minerals strategy, the Administration will improve certain critical mineral reporting, such as the annual USGS Mineral Commodity Summaries. The Department looks forward to further discussion with the Committee on this section to determine appropriate reporting requirements and timeframes, particularly for commodity forecasting. Finally, the Department supports the bill's (Section 11) reauthorization of the National Geologic and Geophysical Data Preservation Program at the USGS, which is important in the implementation of the Federal critical minerals strategy.

Permitting & Development (Sections 6 & 7)

The bill (Section 6) directs the Department and the U.S. Forest Service (Forest Service) to implement improvements to each respective agency's mineral development permitting processes for critical minerals. It would also require several reports, including an annual report on the progress of implementing these permit processing improvements. The bill directs the Department and the Forest Service, to the maximum extent practicable, to establish and adhere to timelines for processing the applications and final decisions for critical minerals. It also requires the Department to engage in early and active consultation with State, local, and Tribal governments to allow for concurrent reviews as a means to minimize delays in issuing permits. Under Secretary's Order 3355, the Department is committed to finding and implementing efficiencies in permitting, and this section of the bill aligns with these prior-

ities. The Secretary's Order similarly directs the BLM to adhere to a schedule for processing environmental reviews.

Under the bill (Section 7), Federal Register notices must be published by the offices that issue critical mineral permits within 45 days of initial preparation. The Department supports the sponsors' goal of expediting permitting processes. We would like to continue to work with the sponsors on finding ways to help streamline the Department's notification process.

Provisions Affecting Other Agencies

The Department defers to the Department of Energy, the Department of Labor, the National Science Foundation and the Small Business Administration on the bill's provisions that affect their respective agencies.

CONCLUSION

The Department is committed to promoting domestically sourced critical minerals. Doing so will create and sustain jobs, promote U.S. technological innovation, and reduce our Nation's vulnerability to disruptions in the critical mineral supply chain. Thank you for the opportunity to present this testimony. I will be glad to answer any questions.

Executive views on S. 1317 and S. 1052 were requested from the Department of Energy, but have not been received. The testimony provided by the Department of Energy at the December 5, 2017, hearing on S. 1563, similar legislation, follows:

TESTIMONY OF UNDER SECRETARY MARK MENEZES, U.S. DEPARTMENT OF ENERGY

S. 1563—RARE EARTH ELEMENT ADVANCED COAL TECHNOLOGIES ACT

It's likely the development of a domestic supply of rare earth elements (REEs) that is economically competitive will help fuel our nation's economic growth, secure our energy independence, and increase our national security. The bill appears to authorize \$20 million per year from 2018 through 2025 for the Department of Energy (specifically the Office of Fossil Energy) to develop advanced separation technologies for the extraction and recovery of REEs and minerals from coal and coal byproducts. It appears the bill also requests that DOE, in consultation with the Department of Defense, within 1 year after date of enactment, submit a report that assesses the importance of REEs to the United States, evaluates the development of new separation technologies, and analyzes the market impact of new technologies. Due to the complexities of the research and scope of the report, Congress may want to consider extending the due date of the initial assessment.

The bill appears to acknowledge the current ongoing efforts within DOE to advance separation technologies for the recovery of REEs. Thus, DOE appreciates the proposed

legislation as it incorporates its ongoing R&D. DOE is developing technologies with the goal of enabling additional domestic supplies of REEs, reducing environmental impact of coal and REE production, and delivering technologies that can be manufactured within the United States. DOE has accomplished much in this area, including the evaluation of pilot-scale processing options, and the nature and distribution of REEs in U.S. coal deposits.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by S. 1317, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in *italic*, existing law in which no change is proposed is shown in roman):

ARCTIC RESEARCH AND POLICY ACT OF 1984

Public Law 98–373

AN ACT To provide for a comprehensive national policy dealing with national research needs and objectives in the arctic, for a national critical materials council, for development of a continuing and comprehensive national materials policy, for programs necessary to carry out that policy, including federal programs of advanced materials research and technology, and for innovation in basic industries, and for other purposes

* * * * *

【TITLE II—NATIONAL CRITICAL MATERIALS ACT OF 1984

【SHORT TITLE

【SEC. 201. This title may be cited as the “National Critical Materials Act of 1984”.

【FINDINGS AND PURPOSES

【SEC. 202. (a) The Congress finds that—

【(1) the availability of adequate supplies of strategic and critical industrial minerals and materials continues to be essential for national security, economic well-being, and industrial production;

【(2) the United States is increasingly dependent on foreign sources of materials and vulnerable to supply interruption in the case of many of those minerals and materials essential to the Nation’s defense and economic well-being;

【(3) together with increasing import dependence, the Nation’s industrial base, including the capacity to process minerals and materials, is deteriorating—both in terms of facilities and in terms of a trained labor force;

【(4) research, development, and technological innovation, especially related to improved materials and new processing technologies, are important factors which affect our long-term

capability for economic competitiveness, as well as for adjustment to interruptions in supply of critical minerals and materials;

[(5) while other nations have developed and implemented specific long-term research and technology programs to develop high-performance materials, no such policy and program evolution has occurred in the United States;

[(6) establishing critical materials reserves, by both the public and private sectors and with proper organization and management, represents one means of responding to the genuine risks to our economy and national defense from dependency on foreign sources;

[(7) there exists no single Federal entity with the authority and responsibility for establishing critical materials policy and for coordinating and implementing that policy; and

[(8) the importance of materials to national goals requires an organizational means for establishing responsibilities for materials programs and for the coordination, within and at a suitably high level of the Executive Office of the President, with other existing policies within the Federal Government.

[(b) It is the purpose of this title—

[(1) to establish a National Critical Materials Council under and reporting to the Executive Office of the President which shall—

[(A) establish responsibilities for and provide for necessary coordination of critical materials policies, including all facets of research and technology, among the various agencies and departments of the Federal Government, and make recommendations for the implementation of such policies;

[(B) bring to the attention of the President, the Congress, and the general public such materials issues and concerns, including research and development, as are deemed critical to the economic and strategic health of the Nation; and

[(C) ensure adequate and continuing consultation with the private sector concerning critical materials, materials research and development, use of materials. Federal materials policies, and related matters;

[(2) to establish a national Federal program for advanced materials research and technology, including basic phenomena through processing and manufacturing technology; and

[(3) to stimulate innovation and technology utilization in basic as well as advanced materials industries.

[(ESTABLISHMENT OF THE NATIONAL CRITICAL MATERIALS COUNCIL

[SEC. 203. There is hereby established a National Critical Materials Council (hereinafter referred to as the “Council”) under and reporting to the Executive Office of the President. The Council shall be composed of three members who shall be appointed by the President and who shall serve at the pleasure of the President. Members so appointed who are not already Senate-confirmed officers of the Government shall be appointed by and with the advice and consent of the Senate. The President shall designate one of the members to serve as Chairman. Each member shall be a person

who, as a result of training, experience, and achievement, is qualified to carry out the duties and functions of the Council, with particular emphasis placed on fields relating to materials policy or materials science and engineering. In addition, at least one of the members shall have a background in and understanding of environmentally related issues.

【RESPONSIBILITIES AND AUTHORITIES OF THE COUNCIL

【SEC. 204. (a) It shall be the primary responsibility of the Council—

【(1) to assist and advise the President in establishing coherent national materials policies consistent with other Federal policies, and making recommendations necessary to implement such policies;

【(2) to assist in establishing responsibilities for, and to coordinate. Federal materials-related policies, programs, and research and technology activities, as well as recommending to the Office of Management and Budget budget priorities for materials activities in each of the Federal departments and agencies;

【(3) to review and appraise the various programs and activities of the Federal Government in accordance with the policy and directions given in the National Materials and Minerals Policy, Research and Development Act of 1980 (30 U.S.C. 1601), and to determine the extent to which such programs and activities are contributing to the achievement of such policy and directions;

【(4) to monitor and evaluate the critical materials needs of basic and advanced technology industries and the Government, including the critical materials research and development needs of the private and public sectors;

【(5) to advise the President of mineral and material trends, both domestic and foreign, the implications thereof for the United States and world economies and the national security, and the probable effects of such trends on domestic industries;

【(6) to assess through consultation with the materials academic community the adequacy and quality of materials-related educational institutions and the supply of materials scientists and engineers;

【(7) to make or furnish such studies, analyses, reports, and recommendations with respect to matters of materials-related policy and legislation as the President may request;

【(8)(A) to prepare a report providing a domestic inventory of critical materials with projections on the prospective needs of Government and industry for these materials, including a long-range assessment, prepared in conjunction with the Office of Science and Technology Policy in accordance with the National Materials and Minerals Policy, Research and Development Act of 1980, and in conjunction with such other Government departments or agencies as may be considered necessary, of the prospective major critical materials problems which the United States is likely to confront in the immediate years ahead and providing advice as to how these problems may best be addressed, with the first such report being due on April 1, 1985, and (B) review and update such report and assessment as ap-

appropriate and report thereon to the Congress at least biennially; and

[(9) to recommend to the Congress such changes in current policies, activities, and regulations of the Federal Government, and such legislation, as may be considered necessary to carry out the intent of this title and the National Materials and Minerals Policy, Research and Development Act of 1980.

[(b) In carrying out its responsibilities under this section the Council shall have the authority—

[(1) to establish such special advisory panels as it considers necessary, with each such panel consisting of representatives of industry, academia, and other members of the private sector, not to exceed ten members, and being limited in scope of subject and duration; and

[(2) to establish and convene such Federal interagency committees as it considers necessary in carrying out the intent of this title.

[(c) In seeking to achieve the goals of this title and related Acts, the Council and other Federal departments and agencies with responsibilities or jurisdiction related to materials or materials policy, including the National Security Council, the Council on Environmental Quality, the Office of Management and Budget, and the Office of Science and Technology Policy, shall work collaboratively and in close cooperation.

[(PROGRAM AND POLICY FOR ADVANCED MATERIALS RESEARCH AND TECHNOLOGY

[(SEC. 205. (a) In addition to the responsibilities described in section 204, the Council shall be responsible for coordination with appropriate agencies and departments of the Federal Government relative to Federal materials research and development policies and programs. Such policies and programs shall be consistent with the policies and goals described in the National Materials and Minerals Policy, Research and Development Act of 1980. In carrying out this responsibility the Council shall—

[(1)(A) establish a national Federal program plan for advanced materials research and development, recommend the designation of the key responsibilities for carrying out such research, and to provide for coordination of this plan with the Office of Science and Technology Policy, the Office of Management and Budget, and such other Federal offices and agencies as may be deemed appropriate, and (B) annually review such plan and report thereon to the Congress;

[(2) review annually the materials research, development, and technology authorization requests and budgets of all Federal agencies and departments; and in this activity the Council shall make recommendations, in cooperation with the Office of Science and Technology Policy, the Office of Management and Budget, and all other Federal offices and agencies deemed appropriate, to ensure close coordination of the goals and directions of such programs with the policies determined by the Council; and

[(3) assist the Office of Science and Technology Policy in the preparation of such long-range materials assessments and reports as may be required by the National Materials and Min-

erals Policy, Research and Development Act of 1980, and assist other Federal entities in the preparation of analyses and reporting relating to critical and advanced materials.

[(b) The Office of Management and Budget, in reviewing the materials research, development, and technology authorization requests of the various Federal departments and agencies for any fiscal year, and the recommendations of the Council, shall consider all of such requests and recommendations as an integrated, coherent, multiagency request which shall be reviewed by the Office of Management and Budget for its adherence to the national Federal materials program plan in effect for such fiscal year under subsection (a).

【INNOVATION IN BASIC AND ADVANCED MATERIALS INDUSTRIES

【SEC. 206. (a)(1) In Order to promote the use of more cost-effective, Industrial advanced technology and other means of providing for innovation and increased productivity within the basic and advanced materials industries, the Council shall evaluate and make recommendations regarding the establishment of Centers for Industrial Technology as provided in Public Law 96-480 (15 U.S.C. 3705).

【(2) The activities of such Centers shall focus on, but not be limited to, the following generic materials areas: corrosion; welding and joining of materials; advanced processing and fabrication technologies; microfabrication; and fracture and fatigue.

【(b) In order to promote better use and innovation of materials in design for improved safety or efficiency, the Council shall establish in cooperation with the appropriate Federal agencies and private industry, an effective mechanism for disseminating materials property data in an efficient and timely manner. In carrying out this responsibility, the Council shall consider, where appropriate, the establishment of a computerized system taking into account, to the maximum extent practicable, existing available resources.

【COMPENSATION OF MEMBERS AND REIMBURSEMENTS

【SEC. 207. (a) The Chairman of the Council, if not otherwise a paid officer or employee of the Federal Government, shall be paid at the rate not to exceed the rate of basic pay provided for level II of the Executive Schedule. The other members of the Council, if not otherwise paid officers or employees of the Federal Government, shall be paid at a per diem rate comparable to the rate not to exceed the rate of basic pay provided for level III of the Executive Schedule,

【(b) Subject to existing law and regulations governing conflicts of interest, the Council may accept reimbursement from any private nonprofit organization or from any department, agency, or instrumentality of the Federal Government, or from any State or local government, for reasonable travel expenses incurred by any member or employee of the Council in connection with such member's or employee's attendance at any conference, seminar, or similar meeting.

【POSITION AND AUTHORITIES OF EXECUTIVE DIRECTOR

【SEC. 208. (a) There shall be an Executive Director (hereinafter 30 USC 1807. referred to as the “Director”), who shall be chief administrator of the Council. The Director shall be appointed by the Council full time and shall be paid at the rate not to exceed the rate of basic pay provided for level III of the Executive Schedule.

【(b) The Director is authorized—

【(1) to employ such personnel as may be necessary for the Council to carry out its duties and functions under this title, but not to exceed twelve compensated employees;

【(2) to obtain the services of experts and consultants in accordance with the provisions of section 3109 of title 5, United States Code; and

【(3) to develop, subject to approval by the Council, rules and regulations necessary to carry out the purposes of this title.

【(c) In exercising his responsibilities and duties under this title, the Director—

【(1) may consult with representatives of academia, industry, labor, State and local governments, and other groups; and

【(2) shall utilize to the fullest extent possible the services, facilities, and information (including statistical information) of public and private agencies, organizations, and individuals.

【(d) Notwithstanding section 367(b) of the Revised Statutes (31 U.S.C. 665(b)), the Council may utilize voluntary and uncompensated labor and services in carrying out its duties and functions.

【RESPONSIBILITIES AND DUTIES OF THE DIRECTOR

【SEC. 209. In carrying out his functions the Director shall assist and advise the Council on policies and programs of the Federal Government affecting critical and advanced materials by—

【(1) providing the professional and administrative staff and support for the Council;

【(2) assisting the Federal agencies and departments in appraising the effectiveness of existing and proposed facilities, programs, policies, and activities of the Federal Government, including research and development, which affect critical materials availability and needs;

【(3) cataloging, as fully as possible, research and development activities of the Government, private industry, and public and private institutions; and

【(4) initiating Government and private studies and analyses, including those to be conducted by or under the auspices of the Council, designed to advance knowledge of critical or advanced materials issues and develop alternative proposals, including research and development, to resolve national critical materials problems.

【AUTHORITY

【SEC. 210. The Council is authorized—

【(1) to establish such internal rules and regulations as may be necessary for its operation;

【(2) to enter into contracts and acquire materials and supplies necessary for its operation to such extent or in such amounts as are provided for in appropriation Acts;

[(3) to publish, consistent with title 44 of the United States Code, or arrange to publish critical materials information that it deems to be useful to the public and private industry to the extent that such publication is consistent with the national defense and economic interest;

[(4) to utilize such services or personnel as may be provided to the Council on a reimbursable basis by any agency of the United States; and

[(5) to exercise such authorities as may be necessary and incidental to carrying out its responsibilities and duties under this title.

[AUTHORIZATION OF APPROPRIATIONS

[SEC. 211. There are hereby authorized to be appropriated to carry out the provisions of this title a sum not to exceed \$500,000 for the fiscal year ending September 30, 1985, and such sums as may be necessary thereafter: *Provided*, That the authority provided for in this title shall expire on September 30, 1990, unless otherwise authorized by Congress.

[DEFINITION

[SEC. 212. As used in this title, the term “materials” has the meaning given it by section 2(b) of the National Materials and Minerals Policy, Research and Development Act of 1980.]

ENERGY POLICY ACT OF 2005

Public Law 109–58

AN ACT To ensure jobs for our future with secure, affordable, and reliable energy

* * * * *

TITLE III—OIL AND GAS

* * * * *

Subtitle E—Production Incentives

* * * * *

SEC. 351. PRESERVATION OF GEOLOGICAL AND GEOPHYSICAL DATA

* * * * *

(k) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section [\$30,000,000 for each of fiscal years 2006 through 2010]. *\$5,000,000 for each of fiscal years 2020 through 2029, to remain available until expended.*

* * * * *

FIXING AMERICA'S SURFACE TRANSPORTATION ACT

Public Law 114–94

AN ACT To authorize funds for federal-aid highways, highway safety programs, and transit programs, and for other purposes

* * * * *

DIVISION D—MISCELLANEOUS

TITLE XLI—FEDERAL PERMITTING IMPROVEMENT

SEC. 41001. DEFINITIONS.

* * * * *

(6) COVERED PROJECT.—

(A) IN GENERAL.— The term “covered project” means any activity in the United States that requires authorization or environmental review by a Federal agency involving construction of infrastructure for renewable or conventional energy production, electricity transmission, surface transportation, aviation, ports and waterways, water resource projects, broadband, pipelines, manufacturing (*including critical mineral manufacturing (as defined in section 101 of the American Mineral Security Act)*), or any other sector as determined by a majority vote of the Council that—

(i)(I) is subject to NEPA;

(II) is likely to require a total investment of more than \$200,000,000; and

(III) does not qualify for abbreviated authorization or environmental review processes under any applicable law; or

(ii) is subject to NEPA and the size and complexity of which, in the opinion of the Council, make the project likely to benefit from enhanced oversight and coordination, including a project likely to require—

(I) authorization from or environmental review involving more than 2 Federal agencies; or

(II) the preparation of an environmental impact statement under NEPA.

* * * * *

NATIONAL MATERIALS AND MINERALS POLICY, RESEARCH AND DEVELOP- MENT ACT OF 1980

Public Law 96-479

AN ACT To provide for a national policy for materials and to strengthen the materials research development, production capability, and performance of the united states and for other purposes

* * * * *

FINDINGS

SEC. 2. (a) The Congress finds that—

(1) the availability of materials is essential for national security, economic well-being, and industrial production;

(2) the availability of materials is affected by the stability of foreign sources of essential industrial materials, instability of materials markets, international competition and demand for materials, the need for energy and materials conservation, and the enhancement of environmental quality;

(3) extraction, production, processing, use, recycling, and disposal of materials are closely linked with national concerns for energy and the environment;

(4) the United States is strongly interdependent with other nations through international trade in materials and other products;

(5) technological innovation and research and development are important factors which contribute to the availability and use of materials;

(6) the United States lacks a coherent national materials policy and a coordinated program to assure the availability of materials critical for national economic well-being, national defense, and industrial production, including interstate commerce and foreign trade; and

(7) notwithstanding the enactment of the Mining and Minerals Policy Act of 1970 (30 U.S.C. 21a), the United States does not have a coherent national materials and minerals policy.

[(b) As used in this Act, the term] (b) *DEFINITIONS.—In this*

Act:

(1) *CRITICAL MINERAL.—The term “critical mineral” means any mineral, element, substance, or material designated as critical by the Secretary under section 103 of the American Mineral Security Act.*

(2) *MATERIALS.—The term “materials” means substances, including minerals, of current or potential use that will be needed to supply the industrial, military, and essential civilian needs of the United States in the production of goods or services, including those which are primarily imported or for which there is a prospect of shortages or uncertain supply, or which present opportunities in terms of new physical properties, use, recycling, disposal or substitution, with the exclusion of food and of energy fuels used as such.*

DECLARATION OF POLICY

SEC. 3. The Congress declares that it is the continuing policy of the United States to promote an adequate and stable supply of materials necessary to maintain national security, economic well-being and industrial production with appropriate attention to a long-term balance between resource production, energy use, a healthy environment, natural resources conservation, and social needs. The Congress further declares that implementation of this policy requires that the President shall, through the Executive Office of the President, coordinate the responsible departments and agencies to, among other measures—

(1) identify materials needs and assist in the pursuit of measures that would assure the availability of materials critical to commerce, the economy, and national security;

(2) establish a mechanism for the coordination and evaluation of Federal materials programs, including those involving research and development so as to complement related efforts by the private sector as well as other domestic and international agencies and organizations;

[(3) establish a long-range assessment capability concerning materials demands, supply and needs, and provide for the policies and programs necessary to meet those needs;] *(3) establish an analytical and forecasting capability for identifying critical mineral demand, supply, and other factors to allow informed actions to be taken to avoid supply shortages, mitigate price volatility, and prepare for demand growth and other market shifts;*

(4) promote a vigorous, comprehensive, and coordinated program of materials research and development consistent with the policies and priorities set forth in the National Science and Technology Policy, Organization, and Priorities Act of 1976 (42 U.S.C. 6601 et seq.);

(5) promote cooperative research and development programs with other nations for the equitable and frugal use of materials and energy;

(6) promote and encourage private enterprise in the development of economically sound and stable domestic materials industries; [and

[(7) encourage Federal agencies to facilitate availability and development of domestic resources to meet critical materials needs.] *(7) facilitate the availability, development, and environmentally responsible production of domestic resources to meet national material or critical mineral needs;*

(8) avoid duplication of effort, prevent unnecessary paperwork, and minimize delays in the administration of applicable laws (including regulations) and the issuance of permits and authorizations necessary to explore for, develop, and produce critical minerals and to construct critical mineral manufacturing facilities in accordance with applicable environmental and land management laws;

(9) strengthen—

(A) educational and research capabilities at not lower than the secondary school level; and

(B) workforce training for exploration and development of critical minerals and critical mineral manufacturing;

- (10) *bolster international cooperation through technology transfer, information sharing, and other means;*
 (11) *promote the efficient production, use, and recycling of critical minerals;*
 (12) *develop alternatives to critical minerals; and*
 (13) *establish contingencies for the production of, or access to, critical minerals for which viable sources do not exist within the United States."*

* * * * *

NATIONAL SUPERCONDUCTIVITY AND COMPETITIVENESS ACT OF 1988

Public Law 100–697

AN ACT To establish a national federal program effort in close collaboration with the private sector to develop as rapidly as possible the applications of superconductivity to enhance the nation's economic competitiveness and strategic well-being, and for other purposes

* * * * *

SEC. 3. NATIONAL ACTION PLAN ON SUPERCONDUCTIVITY RESEARCH AND DEVELOPMENT

* * * * *

(d) UPDATE REPORTS.—The Office of Science and Technology Policy[, with the assistance of the National Critical Materials Council as specified in the National Critical Materials Act of 1984 (30 U.S.C. 1801 et seq.),] shall prepare an annual report setting forth and evaluating the progress of the Superconductivity Action Plan. This report shall include a description of the amount of funds expended in the previous year by all Federal departments and agencies involved with superconductivity. This report shall be submitted with the President's annual budget request to the Committee on Science, Space, and Technology of the House of Representatives, and to the Committees on Energy and Natural Resources, and Commerce, Science, and Transportation of the Senate.

* * * * *

